

### AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** An electrolyte for the galvanic deposition of aluminum-magnesium alloys, containing at least one organoaluminum complex compound of formula  $MAIR_4$  or mixtures thereof and an alkylmagnesium compound, wherein M represents Na, K, Rb or Cs, and R represents a  $C_1$ - $C_{10}$  alkyl group, ~~preferably a  $C_1$ - $C_4$  alkyl group.~~

2. **(Currently amended)** The electrolyte according to claim 1, ~~characterized in that~~ wherein the electrolyte additionally includes trialkylaluminum.

3. **(Currently amended)** The electrolyte according to claim ~~1 or 2~~, ~~characterized in that~~ wherein the electrolyte includes  $AlR_3$ ,  $M^1AlR_4$ ,  $M^2AlR_4$  and  $Mg(R^1)_x(R^2)_y$ , wherein  $M^1$  and  $M^2$  are different from each other, representing Na, K, Rb or Cs, R represents a  $C_1$ - $C_{10}$  alkyl group, ~~preferably a  $C_1$ - $C_4$  alkyl group~~,  $R^1$  and  $R^2$  independently represent a  $C_1$ - $C_{20}$ , ~~preferably a  $C_2$ - $C_{10}$~~  alkyl group, and  $x = 0$  to  $2$ , and  $y = 0$  to  $2$ , and  $x + y = 2$ .

4. **(Currently amended)** The electrolyte according to ~~one or more of claims 1 to~~ Claim 3, ~~characterized in that~~ wherein the alkylmagnesium compound is included in an amount of from 0.01 to 10 mole-%, ~~preferably from 0.1 to 1 mole-%~~, relative to the aluminum complex.

5. **(Currently amended)** The electrolyte according to ~~one or more of claims 1 to~~ Claim 4, ~~characterized in that~~ the alkylmagnesium compound is selected from the group of  $Mgbutyl_{1.5}octyl_{0.5}$ ,  $Mgbutyl_{1.0}ethyl_{1.0}$ ,  $Mgsec-butyl_{1.0}n-butyl_{1.0}$  or mixtures thereof.

6. **(Currently amended)** The electrolyte according to ~~one or more of claims~~ Claim 1 to 5, ~~characterized in that~~ wherein the electrolyte includes an organic solvent.

7. **(Currently amended)** The electrolyte according to claim 6, ~~characterized in that~~ wherein the organic solvent is an aromatic solvent.

8. **(Currently amended)** The electrolyte according to claim 7, ~~characterized in that~~ wherein the aromatic solvent is benzene, toluene or xylene or a mixture thereof.

9. **(Currently amended)** A method for the production of the electrolyte according to ~~claims~~ Claim 1 to 8, ~~comprising~~ characterized by the following steps:

- supplying an organoaluminum complex compound of formula  $MAIR_4$  or a mixture thereof, ~~optionally in combination with trialkylaluminum, and~~
- ~~-addition of~~ adding an alkylmagnesium compound,

wherein M represents Na, K, Rb or Cs, and R represents a C<sub>1</sub>-C<sub>10</sub> alkyl group, preferably a C<sub>1</sub>-C<sub>4</sub> alkyl group.

10. **(Currently amended)** The method according to claim 9, ~~characterized in that~~ wherein the organoaluminum complex compound is a mixture of M<sup>1</sup>AlR<sub>4</sub> and M<sup>2</sup>AlR<sub>4</sub>, wherein M<sup>1</sup> and M<sup>2</sup> are different from each other, representing Na, K, Rb or Cs, R represents a C<sub>1</sub>-C<sub>10</sub> alkyl group, preferably a C<sub>1</sub>-C<sub>4</sub> alkyl group.

11. **(Currently amended)** The method according to claim 9, ~~characterized in that~~ wherein the alkylmagnesium compound is Mg(R<sup>1</sup>)<sub>x</sub>(R<sup>2</sup>)<sub>y</sub>, wherein R<sup>1</sup> and R<sup>2</sup> independently represent a C<sub>1</sub>-C<sub>20</sub>, preferably a C<sub>2</sub>-C<sub>10</sub> alkyl group, and x = 0 to 2, and y = 0 to 2, and x + y = 2.

12. **(Currently amended)** The method according to Claim one or more of claims 9 to 11, ~~characterized in that~~ wherein the alkylmagnesium compound is added dissolved in a hydrocarbon.

13. **(Currently amended)** The method according to Claim one or more of claims 9 to 11, ~~characterized in that~~ wherein the alkylaluminum complex is supplied dissolved in an aromatic hydrocarbon.

14. **(Currently amended)** The method according to claim 12, ~~characterized in that~~ wherein the hydrocarbon is a saturated or unsaturated hydrocarbon.

15. **(Currently amended)** The method according to claim 14, ~~characterized in that~~ wherein the hydrocarbon is selected from the group of i-pentane, n-pentane, hexane, n-hexane, heptane, n-heptane, toluene, xylene.

16. **(Currently amended)** An electrolyte for the production of aluminum-magnesium alloys on electrically conducting materials or electrically conducting layers, which can be produced according to the method of claims Claim 9 to 15.

17. **(Currently amended)** A method of coating electrically conducting materials or layers with aluminum-magnesium alloys comprising coating said electrically conducting materials or layers with using the electrolyte in accordance with Claim claims 1 to 8, in which method the alkylmagnesium compound is metered during coating.

18. **(Cancelled)**

19. **Currently amended)** An electrolysis kit for the galvanic deposition of aluminum-magnesium alloys on electrically conducting materials or layers, including:

Int. Appl. No. : PCT/EP2004/052113  
Int. Filing Date : September 9, 2004

(a) the organoaluminum complex compounds or alkylaluminum compounds of ~~claims Claim 1 to 3~~; and

(b) an alkylmagnesium compound in accordance with ~~claims Claim 1, 3, 5~~.

20. **(Currently amended)** The electrolysis kit according to claim 19, ~~characterized in that wherein~~ the compounds (a) and (b) are present in an organic solvent.

21. **(New)** The electrolyte of Claim 3, wherein R represents C<sub>1</sub>-C<sub>4</sub> alkyl group.

22. **(New)** The electrolyte of Claim 3, wherein R<sup>1</sup> and R<sup>2</sup> independently represent a C<sub>2</sub>-C<sub>10</sub> alkyl group.

23. **(New)** The electrolyte of Claim 4, wherein the alkylmagnesium compound is included in an amount of from 0.1 to 1 mole% relative to the aluminum complex.

24. **(New)** The method of Claim 9, wherein the organoaluminum complex compound of formula MAIR<sub>4</sub> is supplied in combination with trialkylaluminum.

25. **(New)** The method of Claim 9, wherein R represents a C<sub>1</sub>-C<sub>4</sub> alkyl group.

26. **(New)** The method of Claim 11, wherein R<sup>1</sup> and R<sup>2</sup> independently represent a C<sub>2</sub>-C<sub>10</sub> alkyl group.